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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/692,107	10/20/2000	Kiyotaka Kaneko	879-282P	1458

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EXAMINER

NGUYEN, LUONG TRUNG

ART UNIT PAPER NUMBER

2612

DATE MAILED: 03/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/692,107

Applicant(s)

KANEKO ET AL.

Examiner

LUONG T NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-6 and 12-14 is/are rejected.
- 7) ☐ Claim(s) 7-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 07/366,210.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 07/366,210, filed on 6/15/1989.

Drawings

2. New formal drawings are required in this application because the drawings are lost in the original patent file.

Claim Objections

3. Claims 4-14 are objected to because of the following informalities:

Claim 4 (line 22), claim 7 (line 7), claim 9 (lines 2-3), claim 10 (lines 2-3), claim 11 (lines 2-3), claim 12 (line 11), claim 14 (lines 3, 6), "the mode setting means" should be changed to --the photographic mode setting means--.

Claim 12 (line 3), "the color temperature detected means" should be changed to --the color detecting means--.

Claims 5-14 are objected as being dependent on claim 4.

Claim 13 is objected as being dependent on claim 12.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

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4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 12-13 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In claim 12, there is no disclosure to describe the limitation “the low-pass filter having a time constant larger than the predetermined cycle.” It should be noted that the specification only disclose a low pass filter 70, which has a time constant can be altered in page 14 and Figure 4, and in the still mode the time constant of the low pass filter 70 is set smaller than in the movie mode.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai (US 5,170,069) in view of Admitted Prior Art (specification, pages 6-7).

Regarding claim 4, Sakai discloses a white balance adjusting device for use in a camera comprising photographic mode setting means (continuous photographing mode switching means

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unit 10, figure 2, column 6, lines 18-22) for setting a still mode (single shot mode S, figure 2, column 6, lines 18-22) for photographing said field as a still image and a movie mode (high speed continuous photographing mode H, figure 2, column 6, lines 18-22) for photographing said field as a moving image; color temperature detecting means for detecting a color temperature of said field and outputting a color temperature signal representing said color temperature (color temperature sensor 116, figures 2-3, column 6, lines 2-3); control means for adjusting a white balance of said video signal in response to color temperature data that is obtained from said color temperature signal, said control means receiving a set output from said photographic mode setting means and adjusting said white balance of said video at a shorter cycle as compared with said movie mode when said camera is set in said still mode (control circuit 17, figures 2-3, column 3, line 64 – column 4, line 5, figures 4A-1, 4A-2, adjust white balance at steps S503, S524, S581).

Sakai fails to specifically disclose in the still mode, a first response time length is at a predetermined time length; and in the movie mode a second response time length is longer than the predetermined time length. However, the Admitted Prior Art, page 6 discloses that a movie camera is set to have a property of a comparatively slow response from the input of the color temperature data of the field by the color temperature detection device to the execution of the white balance adjustment as compare to still camera. The slow response (need longer time) in movie camera shows that the response time length in movie mode is longer than the response time in the still mode. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Sakai by the Admitted Prior Art in order

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to record a quality color image regardless of whether the photographic mode is the still mode or movie mode.

Regarding claim 14, Sakai discloses a single mode for photographing the filed by a single frame (single shot mode S, column 6, lines 18-22); a sequential mode (a low speed continuous photographing mode L, column 6, lines 18-22); when the sequential mode is set, the control means prohibits updating the color temperature signal that is used for the white balance adjustment at a photographing of a first frame during the sequential photographing after the first frame (figure 4A-2, Steps S60 – S64, once picture is taken, updating color temperature signal is prohibited).

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai (US 5,170,069) in view of Admitted Prior Art (specification, pages 6-7) further in view of Uehara et al. (US 4,595,946).

Regarding claim 5, Sakai discloses a color temperature detection element (light receiving elements 35 and 36, figure 3, column 7, lines 5-10); a logarithmic conversion circuit (logarithmic amplifiers 37 and 38, figure 3, column 7, lines 5-10); a subtraction circuit (subtractor 39, figure 3, column 7, line 11). Sakai and Admitted Prior Art fail to specifically disclose an amplifier for amplifying a subtraction output signal of said subtraction circuit up to a predetermined level. However, Uehara et al. disclose a white balance control system, which includes a differential amplifier 12 which output an amplified signal to white balance adjusting circuit 7 (figures 1-2, column 1, lines 50-60). Therefore, it would have been obvious to one of ordinary skill in the art

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at the time the invention was made to modify the device in Sakai and Admitted Prior Art by the teaching of Uehara et al. in order to amplify the signal before outputting to the white balance adjusting circuit. Doing so, a good white balance adjustment is achieved.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai (US 5,170,069) in view of Admitted Prior Art (specification, pages 6-7) and Uehara et al. (US 4,595,946) further in view of Nakamura (US 4,281,337).

Regarding claim 6, Sakai, Admitted Prior Art and Uehara et al. fail to specifically disclose wherein said color temperature detection element comprises a first photo diode and a second photo diode. However, Nakamura discloses an apparatus for detecting the color temperature of a source of light, which comprises photodiodes 1 and 2 (figure 2, column 4, lines 38-68). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Sakai, Admitted Prior Art and Uehara et al. by the teaching of Nakamura in order to obtain a proper color temperature signal due to a very small current flows through the photodiodes.

Allowable Subject Matter

10. Claims 7-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

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Regarding claim 7, the prior art of the record fails to show or fairly suggest a white balance adjusting device for use in a camera comprising wherein when the movie mode is set by the mode setting means, the control means sequentially compares each of the first color temperature signals sequentially outputted from the color temperature detecting means with a second color temperature signal currently used for the white balance adjustment, and if color temperature change conditions in which a difference between the each of the first color temperature signals and the second color temperature signal is at least a constant value occur a first number of times, then the control means obtains a latest first color temperature signal and updates the second color temperature signal used for the white balance adjustment by the latest first color temperature signal.

Claims 8, 10-11 are allowable for the reason given respect to claim 7.

Regarding claim 9, the prior art of the record fails to show or fairly suggest a white balance adjusting device for use in a camera comprising wherein when the still mode is set by the mode setting means, the control means compares a first color temperature signals outputted from the color temperature detecting means with a second color temperature signal currently used for the white balance adjustment, and if color temperature change condition in which a difference between the first color temperature signal and the second color temperature signal is at least a constant value occurs, then the control means obtains a latest first color temperature signal and updates the second color temperature signal used for the white balance adjustment by the latest first color temperature signal.

Conclusion

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11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hashimoto (US 4,506,290) discloses a white balance apparatus for television cameras.

Murakami et al. (US 4,736,241) discloses white balance adjusting device of color video camera.

Seki et al. (US 4,739,393) disclose circuit for performing white balance correction using two color temperature sensors.

Idia et al. (US 4,843,456) disclose white balance adjusting device for color video camera.

Idia et al. (US 5,021,875) disclose automatic white-balance adjusting apparatus with reduced sensitivity to transient light conditions.

Sakaegi et al. (US 6,266,083) disclose an image pickup apparatus.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Luong Nguyen** whose telephone number is (703) 308-9297. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wendy Garber**, can be reach on (703) 305-4929.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

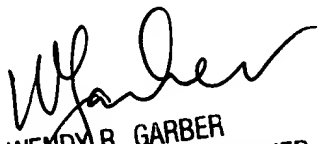
or faxed to:
(703) 872 - 9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

LN LN
3/21/2003


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600